

DRAFT

Lick Creek

Conservation Area

Fifteen-Year Area Management Plan
FY 2017-2031



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OVERVIEW

- **Official Area Name:** Lick Creek Conservation Area, # 9228
- **Year of Initial Acquisition:** 1992
- **Acreage:** 317 acres
- **County:** Boone
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage for forest, wildlife and lake resources with emphasis on the forest and lake and compatible recreational opportunities.
 - B. Desired Future Condition**

The desired future condition of Lick Creek Conservation Area (CA) is a healthy forest and lake with desirable species present.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** None
 - B. Natural Areas:** None
- II. Important Natural Features and Resources**
 - A. Species of Conservation Concern:** None observed.
 - B. Caves:** None
 - C. Springs:** None
 - D. Other:** Lick Creek CA lies within and drains the southeastern margin of the Dissected Till Plains in association with the Prairie Faunal Region.
- III. Existing Infrastructure**
 - One parking lot
 - Gravel 0.25-mile access road
 - Lick Creek Lake (12 acres), including lake dam and one drain pipe
 - One concrete boat ramp

IV. Area Restrictions or Limitations

- A. **Deed Restrictions or Ownership Considerations:** None
- B. **Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. **Easements:** None
- D. **Cultural Resource Findings:** No known cultural resources.
- E. **Endangered Species:** None observed.
- F. **Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Lick Creek CA is primarily forested. Other terrestrial resources at the area include old field habitat, woodland habitat, a four-acre pine plantation and both upland and bottomland hardwoods. Tree species on the area include northern red oak, white oak, eastern white pine, Scotch pine, jack pine, cedar, hickory, black walnut, ash, elm, post oak, black oak, chinquapin oak, sycamore, cottonwood and various other bottomland species. The forests in the northeastern corner of the area are higher quality dry-mesic forests.

Challenges and Opportunities:

- 1) Manage forests to assure long term health and sustainability.
- 2) Maintain healthy forest habitats for wildlife. Deer and turkey are abundant.
- 3) Maintain healthy forested riparian corridors.

Management Objective 1: Manage forest resources to ensure long term health and sustainability.

Strategy 1: Conduct an inventory in Fiscal Year (FY) 2018 to determine forest stand management needs, such as forest thinning and timber harvest, to maintain the health of each stand. (Forestry)

Strategy 2: Monitor woodlands for invasive vegetation, diseases and insects. Suppress any infestations that may develop. (Forestry)

Strategy 3: Implement the inventory recommendations in a timely fashion. (Forestry)

Strategy 4: Utilize Best Management Practices during timber harvest and woodland management as described in the Department's manuals: *Missouri Watershed Protection Practice manual* (Missouri Department of Conservation 2014) and the *Missouri Forest Management Guidelines Voluntary*

Recommendations for Well-Managed Forests (Missouri Department of Conservation 2014) (Forestry)

Management Objective 2: Maintain healthy forests with management emphasis on wildlife habitat.

Strategy 1: Implement forest stand prescriptions that are beneficial to wildlife. (Forestry)

Strategy 2: Maintain native vegetation while suppressing any invasive species. (Forestry)

Management Objective 3: Maintain riparian corridors on the area to minimize erosion and determine whether additional tree planting is needed to widen the riparian corridor in problem areas.

Strategy 1: Maintain desirable species surrounding the lakeshore. Maintain at least a 200-foot-wide wooded corridor on all area streams. (Forestry)
(Forestry)

Strategy 2: Utilize Best Management Practices during timber harvest and woodland management as described in the Department's manuals: *Missouri Watershed Protection Practice manual* (Missouri Department of Conservation 2014) and the *Missouri Forest Management Guidelines Voluntary Recommendations for Well-Managed Forests* (Missouri Department of Conservation 2014) (Forestry)

Strategy 3: Maintain a riparian buffer during all forestry work. (Forestry)

Strategy 4: Determine locations and plant seedlings in areas where the riparian corridor is not wide enough to reduce erosion. (Forestry)

VI. Aquatic Resource Management Considerations

Lick Creek Lake

Lick Creek Lake (12 acres) was constructed in 1972 and opened to public fishing in 1994. The lake has 0.8 miles of shoreline, a volume of approximately 91 acre-feet, maximum depth of 28 feet and mean depth of 9 feet.

The lake's fishery has not changed much since it was first sampled by Department Fisheries staff in 1993. Fish species present in Lick Creek Lake include largemouth bass, bluegill, channel catfish, green sunfish, golden shiners, white crappie and hybrid sunfish (bluegill green sunfish cross).

Fish habitat in the lake consists of aquatic plants, brush piles and a few stumps. The most dominant aquatic plants are watershield and American pondweed. Other species present include cattails, spike rush, coontail, duckweed, watermeal and filamentous algae.

Currently, there is an appropriate amount of aquatic vegetation in the lake. However, at times, watershield has become excessive and has needed some type of control. Hard cover in the form of brush piles and stumps is limited in the lake and needs to be addressed to better improve fish habitat.

The lake's 149-acre watershed is primarily wooded. As a result, there is little siltation in the upper end of the lake and it remains clear most of the year.

The lake has a 16-inch drainpipe located at the southern end of the dam and an emergency spillway located at the northern end of the dam. Occasionally the drain pipe becomes plugged due to beaver activity.

Area Streams

Lick Creek CA includes 1.2 stream miles, including two first-order intermittent streams (1.02 miles) and one third-order perennial stream (Lick Fork Creek, 0.18 miles). Lick Fork Creek is a direct tributary of Perche Creek and is the largest stream on the area. It runs through the west end of the property and is classified as an intermittent stream having permanent pools throughout the year.

The fish community in Lick Fork Creek appears to be characteristic of other prairie headwater streams, having diverse habitat and good water quality. The stream is a rock bottom stream. During summer months the stream may carry very little water except for periods of run-off following storms. Fish species sampled by the Department in Lick Fork Creek (from 1961 to 2013) include the central stoneroller, sand shiner, blackstripe topminnow, golden shiner, bluntnose minnow, largemouth bass, Johnny darter, green sunfish, western redbfin shiner, orange-spotted sunfish, white sucker, logperch, bluegill, yellow bullhead, northern orange-throat darter, red shiner, creek chub, common shiner, bigmouth shiner, golden redhorse, Topeka shiner and black bullhead (Missouri Department of Conservation, n.d.).

Lick Fork Creek and its tributaries have good forested riparian corridors along most of the reaches on the area. There are a few sites, however, where the riparian corridors need to be widened to meet the guidelines established in the *Missouri Watershed Protection Practice manual* (Missouri Department of Conservation 2014)

There are no serious stream degradation problems on the area. In fact, area stream health is excellent compared to most other streams in the region.

Challenges and Opportunities:

- 1) Maintain a productive fishery in Lick Creek Lake.

- 2) Maintain and/or improve water quality and fish habitat at Lick Creek Lake to support diverse aquatic life.
- 3) Keep the lake drainpipe free of debris.

Management Objective 1: Maintain a productive high quality fishery in Lick Creek Lake.

Strategy 1: Sample lake fishery every three years and recommend changes to creel limits by FY20, if needed. (Fisheries)

Strategy 2: Maintain a slot length limit of 12 to 15 inches and a daily limit of six largemouth bass, unless population indices cannot be met for three consecutive years. (Fisheries)

Strategy 3: Maintain the daily creel limit of 20 sunfish, unless population indices cannot be met for three consecutive years. (Fisheries)

Strategy 4: Maintain the daily creel limit of four catfish, unless population indices cannot be met for three consecutive years. (Fisheries)

Management Objective 2: Maintain and/or improve water quality and habitat to support diverse aquatic life at Lick Creek Lake.

Strategy 1: Maintain/enhance aquatic habitat in Lick Creek Lake by removing or reducing undesirable aquatic vegetation; adding hard cover for fish, amphibians and reptiles; reducing siltation; and maintaining good water quality. (Fisheries)

Strategy 2: Construct/maintain fish attractors/brush piles using hardwood, red cedar and/or recycled Christmas trees, within 40 to 50 feet from the shoreline, at a depth between 5 to 10 feet and near the fishing dock, boat ramp and other bank-fishing areas. (Fisheries)

Strategy 3: Triennially survey aquatic plant coverage, species composition and densities within the littoral zone during July or August. (Fisheries)

Strategy 4: Stock grass carp and or use appropriate herbicides to maintain aquatic vegetation between 20 and 30 percent of Lick Creek CA's total surface area. (Fisheries)

Strategy 5: Eliminate aquatic vegetation from selected bank fishing areas, as needed, using appropriate aquatic herbicides. (Fisheries)

Management Objective 3: Keep the drainpipe at the lake free of debris and in good working order.

Strategy 1: Promote trapping of nuisance beavers on the lake and around the drainpipe to avoid plugged pipe and dam breach. (Forestry)

VII. Public Use Management Considerations

Special facilities at Lick Creek CA include a parking lot and a concrete boat ramp to the lake. Canoes and other small watercraft can be launched from the boat ramp. Only electric motors are permitted on lakes and ponds of less than 70 acres.

Challenges and Opportunities:

- 1) Provide for hunting and viewing opportunities.
- 2) Provide for fishing opportunities.
- 3) Build relationships with neighboring landowners.
- 4) Improve angler access.
- 5) Keep the area inviting for public use.

Management Objective 1: Provide public hunting and wildlife viewing opportunities.

Strategy 1: Conduct management activities that will provide habitat for a diversity of species. (Forestry)

Strategy 2: Conduct invasive species suppression, when necessary, to improve wildlife habitat. (Forestry)

Management Objective 2: Provide for fishing opportunities in Lick Creek Lake.

Strategy 1: Communicate recreational opportunities to the public (e.g., using brochures, Atlas database). (Forestry)

Strategy 2: Maintain the lake dam in a mowed, non-brushy condition to be inviting for bank fishing. (Forestry)

Strategy 3: Maintain the concrete boat ramp for lake access. (Forestry)

Management Objective 3: Facilitate good working relationships with neighboring landowners.

Strategy 1: Work with neighbors to minimize boundary, trespass or any other issues affecting Lick Creek CA. (Forestry)

Management Objective 4: Improve angler access at fishing areas.

Strategy 1: Cut shoreline vegetation at existing bank fishing areas on the dam, near boat ramp and around the west side of the lake to keep grass and brush short for fishing. (Forestry)

Strategy 2: Keep the boat ramp clear of debris and trash. (Forestry)

Management Objective 5: Keep the area inviting for public use.

Strategy 1: Keep the parking lot graded and graveled to invite use of the lake. (Design and Development)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure at current levels.
- 2) Consider acquisition of land, when available.

Management Objective 1: Maintain area infrastructure at current levels.

Strategy 1: Maintain area infrastructure in accordance to the Department guidelines. (Forestry)

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered. (Forestry)

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

[illegible]

APPENDICES

Area Background:

Lick Creek Conservation Area (CA) is 9 miles north of Columbia, Missouri on Highway 63, 3 miles west on Highway 124 and 1.8 miles north on Oak Grove School Road. The area is open to the public from 4 a.m. to 10 p.m. daily. Some authorized activities can occur between 10 p.m. and 4 a.m.

The conservation area is named for Lick Creek that runs through the area's west end. The area was farmed in the early part of the century until severe erosion and poor economic conditions forced farmers to abandon the area for crops. For more than 30 years, from the 1930s to the 1960s, the area was used for livestock pasture. The area was purchased in 1968 by Monte Gurwit for recreational purposes. Later, in 1972 the current 12-acre lake was built. Missouri Department of Conservation purchased the area in 1992. After purchase, a 0.25-mile access road and a parking lot were installed. The area was opened to the public in 1994. Tree species on the area include northern red oak, white oak, eastern white pine, Scotch pine, jack pine, cedar, hickory, black walnut, ash, elm, post oak, black oak, chinquapin oak, sycamore, cottonwood and various other bottomland species.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Forest/Woodland	265		84
Old Field	34		10
Lakes/Ponds	12		4
Grassland (non-prairie)	6		2
Total	317		100
Stream Frontage – Perennial		0.18	
Stream Frontage – Intermittent		1.2	

References:

Missouri Department of Conservation (2014) (Forestry) *Missouri forest management guidelines voluntary recommendations for well-managed forests*. Jefferson City, MO: Conservation Commission of the State of Missouri.

Missouri Department of Conservation. (2014). *Missouri watershed protection recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, Missouri: Conservation Commission of the State of Missouri.

Maps:

Figure 1: Area Map

Figure 2: Aerial Photograph

Figure 3: Topographic Map

Figure 4: Aquatic Resources Map

Figure 5: Land Cover Type Map

Figure 1: Area Map

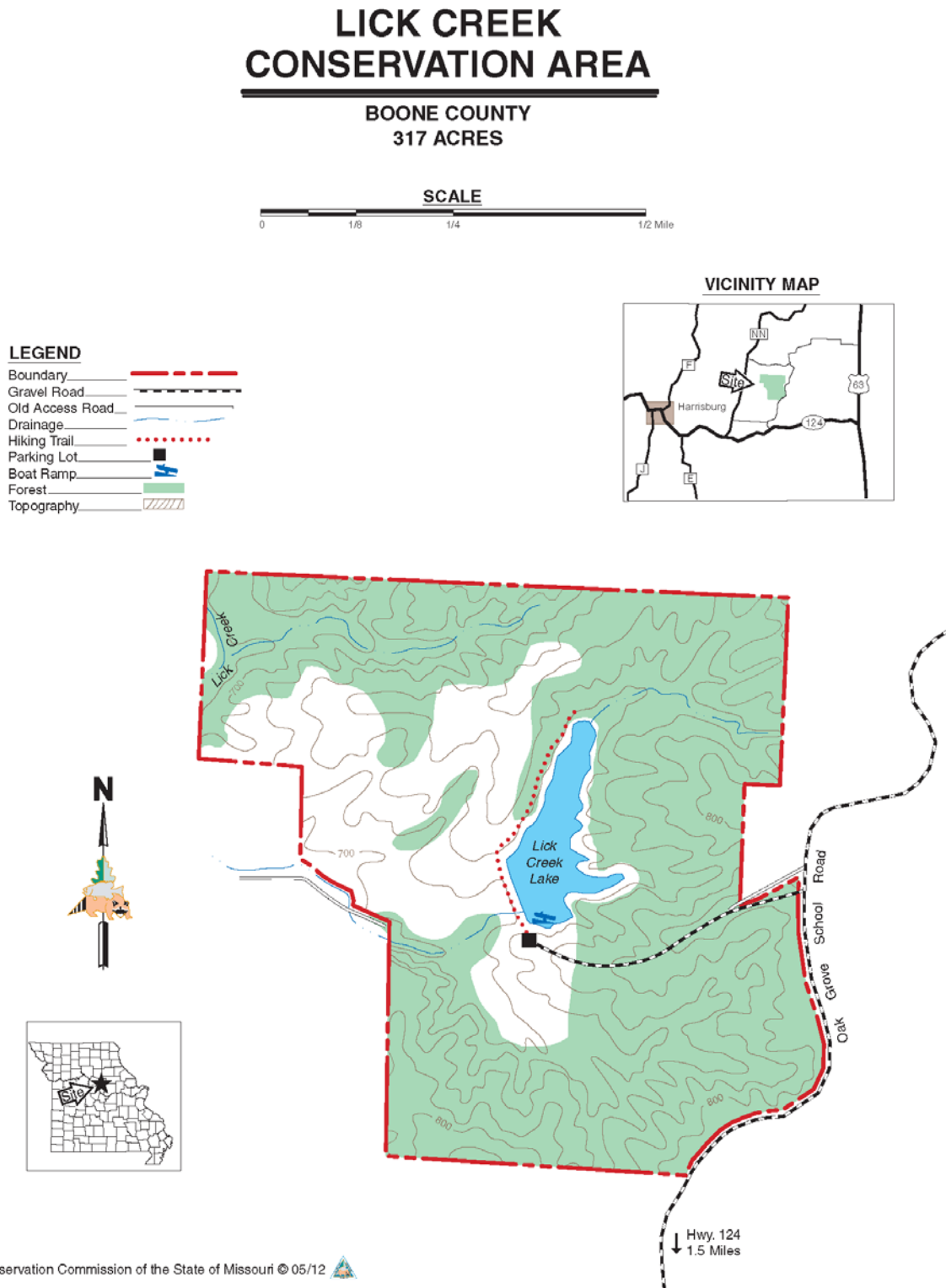


Figure 2: Aerial Photograph



Figure 3: Topographic Map



Figure 4: Aquatic Resources Map

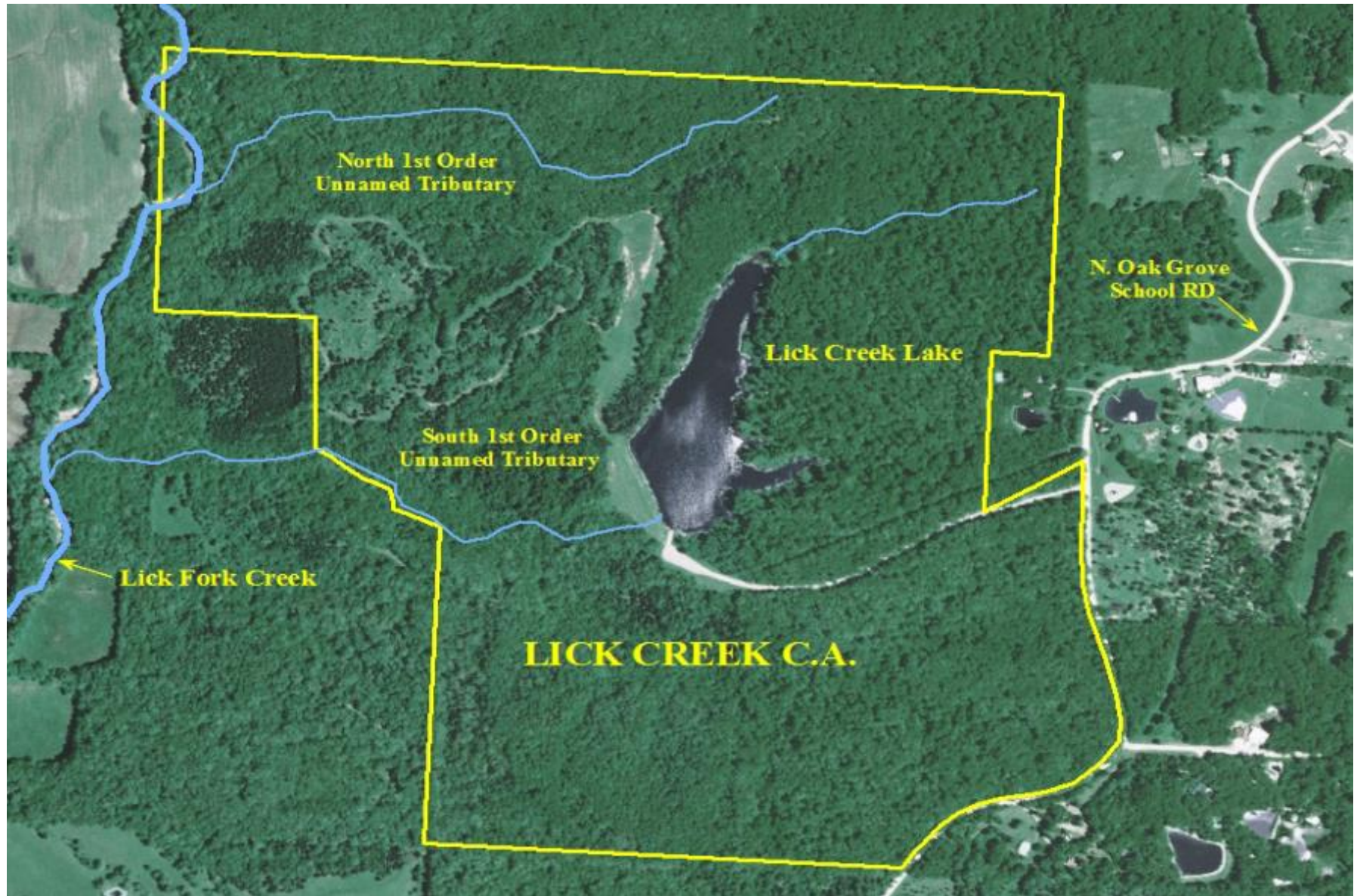
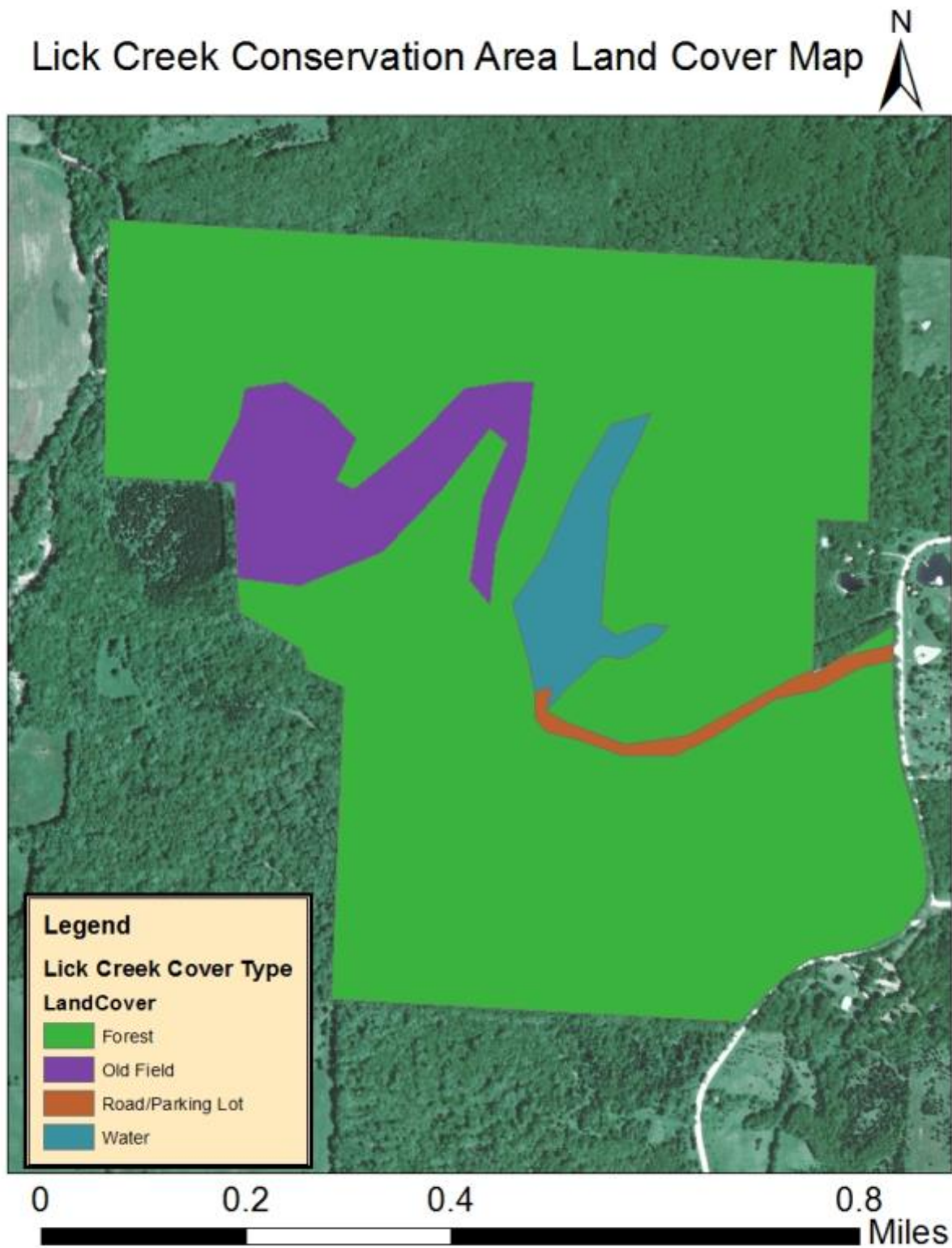


Figure 5: Land Cover Type Map



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